

WHAT IS CLAIMED IS:

1 1. A method of inhibiting the proliferation of vascular smooth muscle
2 cells in a subject in need thereof, said method comprising administering an inhibitor of a
3 soluble epoxide hydrolase to said subject.

1 2. A method of claim 1, wherein said inhibitor of a soluble epoxide
2 hydrolase is a derivative of a pharmacophore selected from the group consisting of urea,
3 carbamate, or amide.

1 3. A method of claim 2, wherein said pharmacophore is covalently bound
2 to an adamantane and to a 12 carbon chain dodecane.

1 4. A method of claim 2, wherein said inhibitor is a derivative of urea.

1 5. A method of claim 4, wherein said derivative of urea is selected from
2 the group consisting of an isomer of adamantyl dodecyl urea, N-cyclohexyl-N'-dodecyl urea
3 (CDU) and N, N'-dicyclohexylurea (DCU).

1 6. A method of claim 1 wherein said inhibitor of a soluble epoxide
2 hydrolase is selected from the group consisting of a lipid alkoxide, a lipophilic diimide, a
3 phenyl glycidol, and a chalcone oxide.

1 7. A method of claim 6, wherein said inhibitor is a lipid alkoxide.

1 8. A method of claim 6, wherein said lipophilic diimide is
2 dicyclohexylcarbodiimide.

1 9. A method of claim 6, wherein said phenyl glycidol is S, S-4-
2 nitrophenylglycidol.

1 10. A method of claim 6, wherein said chalcone oxide is selected from the
2 group consisting of 4-phenylchalcone oxide and 4-fluourochalcone oxide.

1 11. A method of claim 1, wherein the subject in need thereof is a patient
2 who has had a heart attack.

1 12. A method of claim 11, wherein the subject in need thereof has had a
2 coronary bypass.

- 1 13. A method of claim 1, wherein the subject in need thereof has
2 undergone angioplasty.
- 1 14. A method of claim 1, wherein the subject in need thereof has a stent in
2 an arterial lumen.
- 1 15. A method of claim 14, in which said stent comprises a material
2 comprising an inhibitor of a soluble expoxide hydrolase.
- 1 16. A method of claim 15, wherein said material comprising an inhibitor of
2 a soluble expoxide hydrolase releases said inhibitor into its surroundings over time.
- 1 17. A method of claim 14, wherein said material comprising an inhibitor of
2 a soluble expoxide hydrolase further comprises *cis*-epoxyeicosatrienoic acids (EETs).
- 1 18. A method of claim 1, wherein the subject in need thereof has a
2 hemodialysis graft.
- 1 19. A method of claim 18, in which said graft comprises a material
2 comprising an inhibitor of a soluble expoxide hydrolase.
- 1 20. A method of claim 19, wherein said material comprising an inhibitor of
2 a soluble expoxide hydrolase releases said inhibitor into its surroundings over time.
- 1 21. A method of claim 19, wherein said material comprising an inhibitor of
2 a soluble expoxide hydrolase further comprises *cis*-epoxyeicosatrienoic acids (EETs).
- 1 22. A method of claim 1, wherein said subject in need thereof has had a
2 natural or synthetic vessel engrafted to enhance blood flow around an area.
- 1 23. A method of claim 22, wherein said subject has a synthetic vessel
2 engrafted, which synthetic vessel comprises a material comprising an inhibitor of a soluble
3 expoxide hydrolase.
- 1 24. A method of claim 23, wherein said material comprising an inhibitor of
2 a soluble expoxide hydrolase releases said inhibitor into its surroundings over time.

